

**Patent Claims:**

1. A metal pigment for a cosmetic preparation, such as lipstick, nail polish, eye shadow, hair colorant, liquid mascara, powder, eyeliner, rouge,  
5 skin/hair care products, perfume, eau de toilette, lotions or the like, **characterized in that** a metallic substrate has a substrate-enclosing layer produced by the sol-gel process, which provides a barrier effect against sweat and saliva and prevents direct contact between skin and metallic substrate.
- 10 2. A metal pigment according to claim 1, **characterized in that** the layer is compatible with a binding agent or carrier of the cosmetic preparation.
3. A metal pigment according to claim 1 or 2, **characterized in that** the layer contains inorganic material or consists of it.
- 15 4. A pigment according to any of claims 1 through 3, **characterized in that** the inorganic material is selected from the group consisting of silicon oxide, titanium oxide, aluminum oxide, iron oxide, cerioxide and chromium oxide or corresponding hydrates as well as mixtures thereof.
- 20 5. A pigment according to any of claims 1 through 3, **characterized in that** the layer contains organic material or consists of it.
- 25 6. A pigment according to any of claims 1 through 3 or 5, **characterized in that** the organic material contains polyacrylates, silicones, polyolefins, polystyrol, polyesters, cellulose esters, polyamides, phosphor-organic substances, organically modified silanes, organically modified titanates, organically modified zirconates, as well as mixtures thereof.

7. A pigment according to any of claims 1 through 6, **characterized in that** the layer thickness of the encapsulation is 5 to 500 nm.
8. A pigment according to any of claims 1 through 7, **characterized in that** the metallic core consists of copper, zinc, aluminum, titanium, silver or gold or alloys of said elements.
9. A pigment containing aluminum according to any of claims 1 through 8, **characterized in that** the metallic core consists of aluminum, 100% of the grain size is  $< 75 \mu\text{m}$  and 95% is  $< 45 \mu\text{m}$  and the content of mercury is  $\leq 1$  ppm, of arsenic  $\leq 3$  ppm, of lead  $\leq 20$  ppm, and the Al content is  $\geq 99\%$ .
10. A pigment according to any of claims 1 through 8, **characterized in that** the metallic core consists of aluminum, the content of mercury is  $\leq 1$  ppm, of arsenic  $\leq 3$  ppm, of lead  $\leq 10$  ppm, of cadmium  $\leq 1$  ppm, of heavy metals (as lead)  $\leq 40$  ppm, the drying loss at  $105^{\circ}\text{C}$  is  $\leq 0.5\%$ , and the Al content is  $\geq 99\%$ .
11. A pigment according to any of claims 1 through 8 in the form of a bronze pigment, **characterized in that** the metallic core contains a content of copper of 70 to 95%, a content of zinc  $\leq 30\%$  and a content of aluminum and tin of  $\leq 0.5\%$  in each case, and the content of cadmium is  $\leq 15$  ppm, of lead  $\leq 20$  ppm, of arsenic  $\leq 3$  ppm and of mercury  $\leq 1$  ppm, and 95% of the grain size is  $< 45 \mu\text{m}$ .
12. A pigment according to any of claims 1 through 8 in the form of a copper pigment, **characterized in that** the metallic core has a content of

copper  $\geq 95\%$  and the content of cadmium is  $\leq 15$  ppm, of lead  $\leq 20$  ppm, of arsenic  $\leq 3$  ppm and of mercury  $\leq 1$  ppm, and 95% of the grain size is  $< 45 \mu\text{m}$ .

- 5     13. A pigment according to any of claims 1 through 8, **characterized in that** the metallic core consists of silver, the content of mercury is  $\leq 1$  ppm, of arsenic  $\leq 5$  ppm, of lead  $\leq 10$  ppm, and the content of silver is  $\geq 99.9\%$ .
- 10    14. A pigment according to any of claims 1 through 8, **characterized in that** the metallic core consists of silver and the content of silver is  $\geq 99.5\%$ .
- 15    15. A pigment according to any of claims 1 through 8, **characterized in that** the metallic core consists of gold, the content of silver is  $\leq 7\%$ , of copper  $\leq 4\%$ , and the content of gold is  $\geq 90\%$ .
- 20    16. A pigment according to any of claims 1 through 5, **characterized in that** the pigment is provided with a coating, wherein the weight ratio of coating to metallic core is between 1 and 0.001.
- 25    17. A pigment according to any of claims 1 through 16, **characterized in that** the metallic substrate is a metal pigment produced through grinding with lubricants of plant origin.
18. A pigment according to any of claims 1 through 17, **characterized in that** the metallic core is formed flake-like with a diameter of 1 to  $100 \mu\text{m}$  and a mean thickness of 0.05 to  $2 \mu\text{m}$ .

19. A method for producing a pigment according to any of the above claims, **characterized in that** the metallic substrate particles are coated without additional pretreatment in a sol-gel process in alcoholic-aqueous solution through hydrolysis and vapor depositing of organic metal oxide  
5 pre-stages and optionally with the use of suitable catalysts.
20. A cosmetic preparation containing a pigment according to any of claims 1 through 8.